EU189967769US

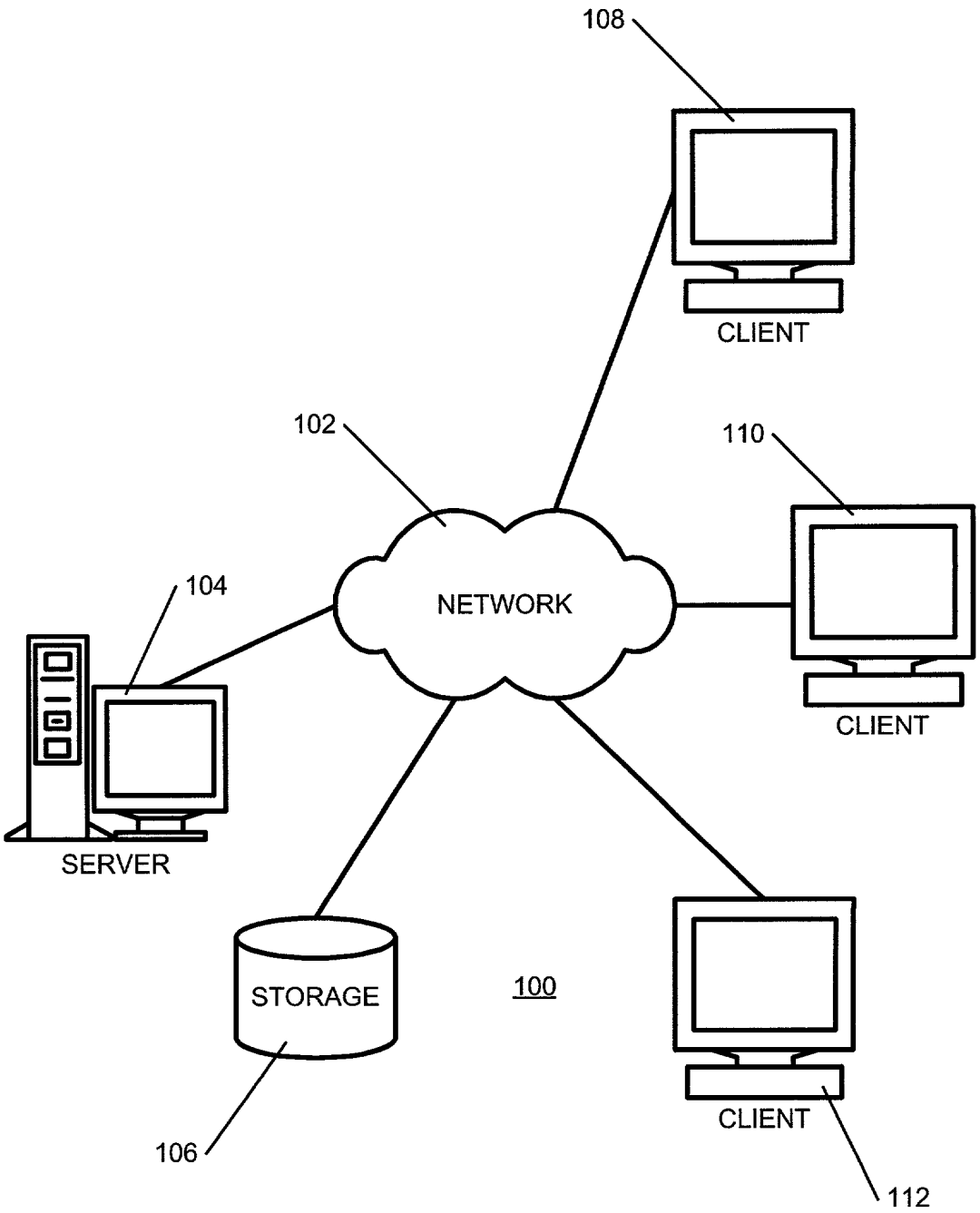


FIG. 1

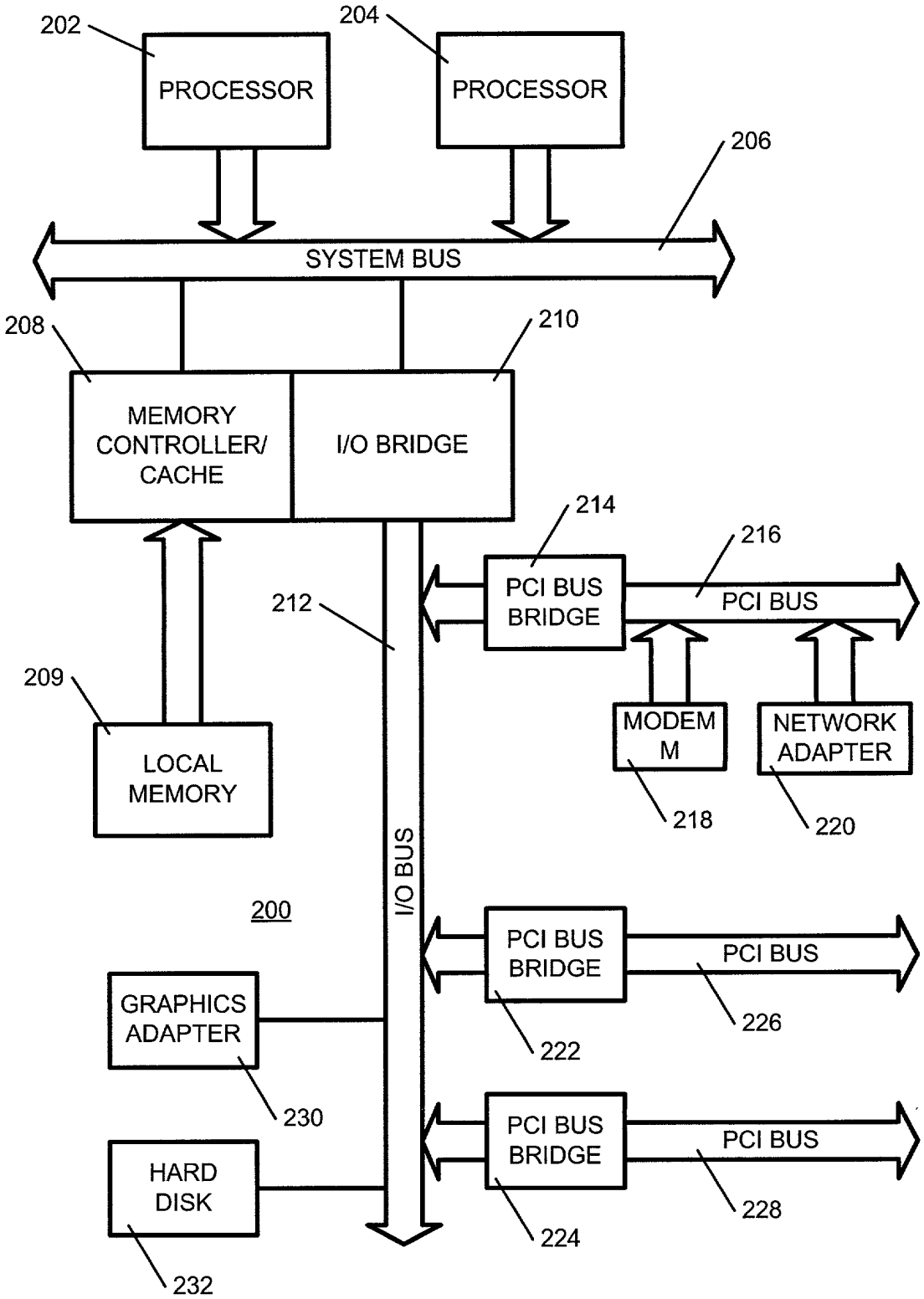

202
PROCESSOR
204
PROCESSOR
206
SYSTEM BUS
208
210
MEMORY CONTROLLER/ CACHE
I/O BRIDGE
214
216
PCI BUS BRIDGE
PCI BUS
212
209
LOCAL MEMORY
MODEM M
NETWORK ADAPTER
218
220
I/O BUS
200
PCI BUS BRIDGE
PCI BUS
GRAPHICS ADAPTER
222
226
230
PCI BUS BRIDGE
PCI BUS
HARD DISK
224
228
232

FIG. 2

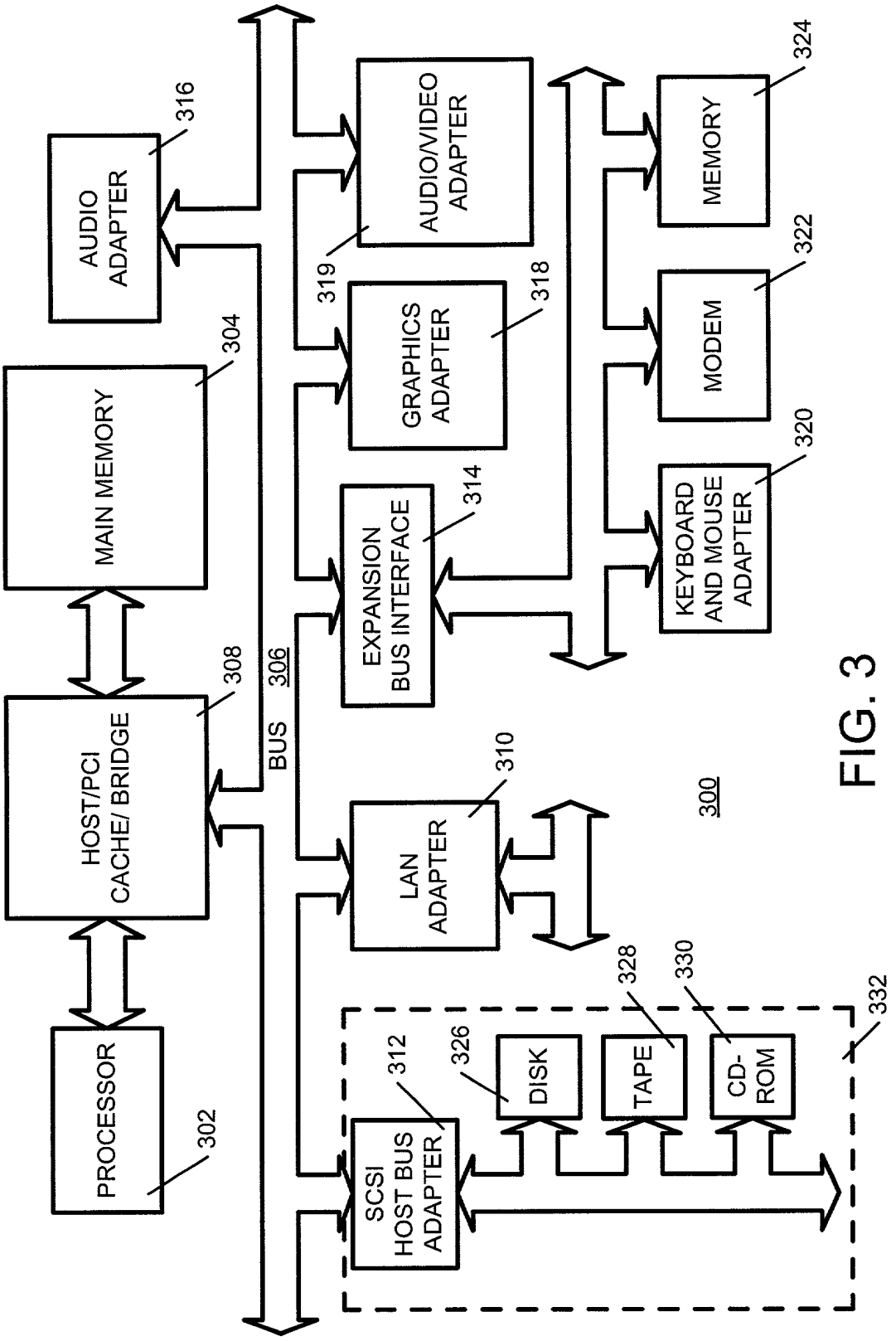

PROCESSOR
302
HOST/PCI CACHE/ BRIDGE
308
MAIN MEMORY
304
AUDIO ADAPTER
316
BUS
306
AUDIO/VIDEO ADAPTER
319
GRAPHICS ADAPTER
318
EXPANSION BUS INTERFACE
314
LAN ADAPTER
310
SCSI HOST BUS ADAPTER
312
DISK
326
TAPE
328
CD-ROM
330
332
KEYBOARD AND MOUSE ADAPTER
320
MODEM
322
MEMORY
324
300

FIG. 3

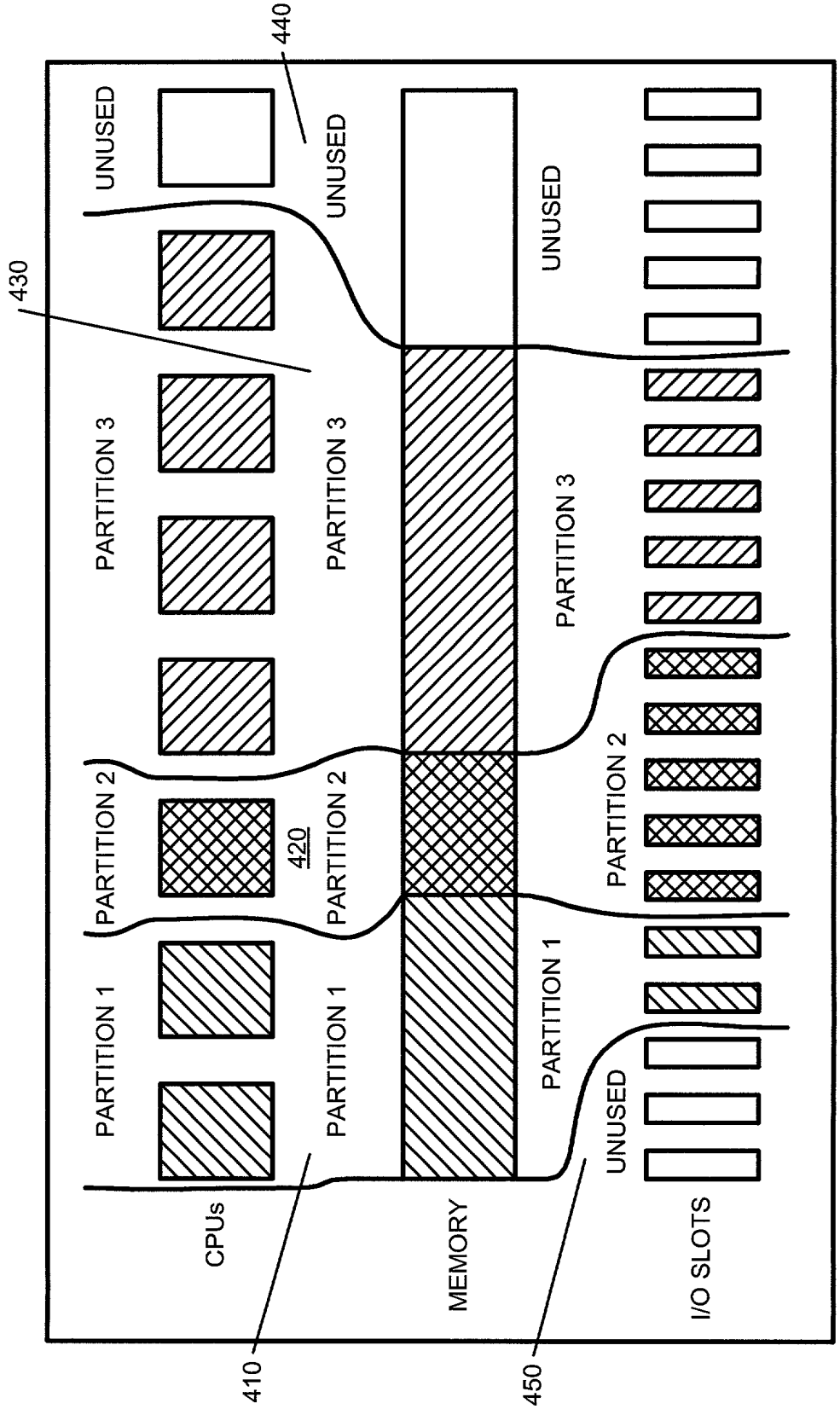

440
430
UNUSED
UNUSED
UNUSED
PARTITION 3
PARTITION 3
PARTITION 3
PARTITION 2
PARTITION 2
PARTITION 2
420
PARTITION 1
PARTITION 1
PARTITION 1
UNUSED
CPUs
MEMORY
I/O SLOTS
410
450

FIG. 4

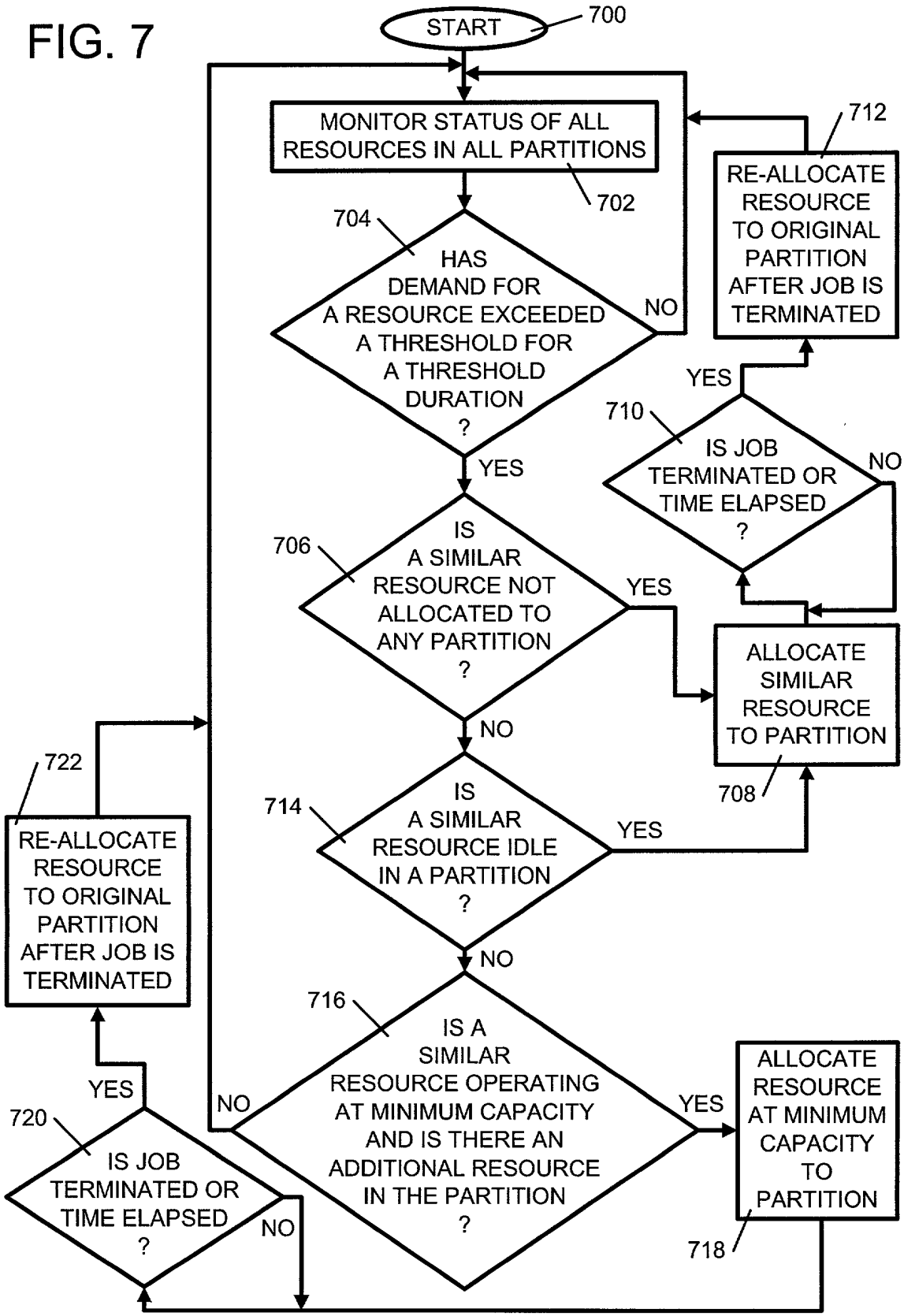
		CPU'S	MEMORY LOCATIONS	I/O SLOTS
500	$PARTITION_1$	CPU_1 & CPU_2	M_1 - M_{50}	$SLOT_4$ & $SLOT_5$
502	$PARTITION_2$	CPU_3	M_{51} - M_{75}	$SLOT_6$ - $SLOT_{10}$
504	$PARTITION_3$	CPU_4 - CPU_7	M_{76} - M_{150}	$SLOT_{11}$ - $SLOT_{15}$

FIG. 5

	CPU'S	MEMORY LOCATIONS	I/O SLOTS
600 — PARTITION$_1$	CPU$_1$ & CPU$_2$	M$_1$ - M$_{50}$	SLOT$_4$ & SLOT$_5$
602 — PARTITION$_2$	CPU$_3$ & CPU$_8$	M$_{51}$ - M$_{75}$	SLOT$_6$ - SLOT$_{10}$
604 — PARTITION$_3$	CPU$_4$ - CPU$_7$	M$_{76}$ - M$_{150}$	SLOT$_{11}$ - SLOT$_{15}$

FIG. 6

FIG. 7


START
700
MONITOR STATUS OF ALL RESOURCES IN ALL PARTITIONS
702
704
HAS DEMAND FOR A RESOURCE EXCEEDED A THRESHOLD FOR A THRESHOLD DURATION ?
NO
YES
706
IS A SIMILAR RESOURCE NOT ALLOCATED TO ANY PARTITION ?
YES
NO
ALLOCATE SIMILAR RESOURCE TO PARTITION
708
710
IS JOB TERMINATED OR TIME ELAPSED ?
NO
YES
712
RE-ALLOCATE RESOURCE TO ORIGINAL PARTITION AFTER JOB IS TERMINATED
714
IS A SIMILAR RESOURCE IDLE IN A PARTITION ?
YES
NO
716
IS A SIMILAR RESOURCE OPERATING AT MINIMUM CAPACITY AND IS THERE AN ADDITIONAL RESOURCE IN THE PARTITION ?
NO
YES
ALLOCATE RESOURCE AT MINIMUM CAPACITY TO PARTITION
718
720
IS JOB TERMINATED OR TIME ELAPSED ?
NO
YES
722
RE-ALLOCATE RESOURCE TO ORIGINAL PARTITION AFTER JOB IS TERMINATED